CLAIM AMENDMENTS

Please cancel Claims 1-56 and add new Claims 57-64 as follows

1.-56. Cancelled.

57. (New) An apparatus for controlling a stepping motor, comprising:

synchronous signal receiving means for receiving a synchronous signal generated in a period corresponding to N (natural Number) times a period of one-line of an image;

line trigger producing means for producing N (natural number) line triggers synchronously with reception of the synchronous signal;

instruction receiving means for receiving a motor control instruction from a CPU synchronously with the reception of the synchronous signal, and

motor control means for effecting the control of said stepping motor until at least the occurrence of a next synchronous signal, on the basis of the line triggers produced by said line trigger producing means in response to the motor control instruction received by said instruction receiving means,

wherein said motor control means includes first memory means for holding timer data for advancing a phase of said stepping motor and second memory means for holding the number of steps of the timer data, and said stepping motor is controlled on the basis of the held timer data and the held number of steps,

wherein said motor control means is synchronized with the line triggers produced by said producing means and controls acceleration/deceleration of said stepping motor by switching acceleration/deceleration data tables comprised of the timer data and the number of steps, and

wherein said instruction receiving means receives the motor control instruction from the CPU synchronously with the reception of the synchronous signal even after the control of acceleration/deceleration is ended.

58. (New) A stepping motor controlling apparatus according to claim 57, wherein said motor control unit includes PWM output data storing means for holding PWM output data having a predetermined number of bits for determining an exciting current for said stepping motor, and PWM output means for outputting the PWM data stored in said PWM output data storing means synchronously with a phase of said stepping motor, and wherein said stepping motor is controlled by setting the number of bits of the PWM data outputted from said PWM output means.

59. (New) A stepping motor controlling apparatus according to claim 57, wherein said motor control unit includes step-up or step-down number storing means for holding a step-up number or a step-down number of said acceleration/deceleration table, and step-up or step-down of said acceleration/deceleration table is effected on the basis of the step-up number or the step-down number held by said step-up or step-down number storing means.

60. (New) A stepping motor controlling apparatus according to claim 59, wherein said motor control unit includes table number storing means for holding a table number of acceleration/deceleration tables, and step-up or step-down of said acceleration/deceleration table is stopped on the basis of the table number held by said table number storing means.

61. (New) A stepping motor control method to be conducted using a stepping motor control apparatus, comprising:

a synchronous signal receiving step of receiving a synchronous signal generated in a period corresponding to N (natural number) times a period of one-line of an image;

a line trigger producing step of producing N (natural number) line triggers synchronously with reception of the synchronous signal;

an instruction receiving step of receiving a motor control instruction from a CPU synchronously with the reception of the synchronous signal; and

a motor control step of effecting the control of said motor until at least the occurrence of a next synchronous signal, on the basis of the line triggers produced in said trigger producing step, in response to the motor control instruction received in said instruction receiving step,

wherein said stepping motor control apparatus includes first memory means for holding timer data for advancing a phase of said stepping motor and second memory means for holding the number of steps of the timer data, and said motor control

step controls said stepping motor on the basis of the held timer data and the held number of steps,

wherein said motor control step is synchronized with the line triggers produced in said producing step and controls acceleration/deceleration of said stepping motor by switching acceleration/deceleration data tables comprised of the timer data and the number of steps, within one-period of the synchronous signal, and

wherein said instruction receiving step receives the motor control instruction from the CPU synchronously with the reception of the synchronous signal even after the control of acceleration/deceleration is ended.

62. (New) A stepping motor control method according to claim 61, wherein said motor control step includes a PWM output data storing step for holding PWM output data having a predetermined the number of bits for determining an exciting current for said stepping motor, and a PWM output step for outputting the PWM data stored in said PWM output data storing step synchronously with a phase of said stepping motor, and wherein said stepping motor is controlled by setting the number of bits of the PWM data outputted in said PWM output step.

63. (New) A stepping motor control method according to claim 61, wherein said motor control step includes a step-up or step-down number storing step for holding a step-up number or a step-down number of said acceleration/deceleration table, and step-up or step-down of said acceleration/deceleration table is effected on the basis of

the step-up number or the step-down number held in said step-up or step-down number storing step.

64. (New) A stepping motor controlling method according to claim 63, wherein said motor control step includes a table number storing step for holding a table number of acceleration/deceleration tables, and step-up or step-down of said acceleration/deceleration table is stopped on the basis of the table number held in said table number storing step.